Exhibit 3

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

IN THE MATTER OF:	)	
EXXONMOBIL OIL CORPORATION	)	
	)	PCB_________
Petitioner,	)	Adjusted Standard - Water)
v.	)	
	)	
ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
Respondent.		

PROCESS DESCRIPTIONS ALONG WITH SIMPLIFIED PROCESS FLOW DIAGRAMS:

ExxonMobil will be utilizing two options to reduce its FCC flue gas SO_2: catalytic SO_2 and wet gas scrubbing.

Catalytic SO_2 Additive Technology (DESOX)

Catalytic SO2 Additive Technology (DESOX) have been successfully used in FCC units for the past 15 years. The SO2 additive has proven capability to reduce FCCU SO2 emissions to achieve compliance with environmental regulations. Catalytic SO2 control additives complements other emission control technology such as wet gas scrubbing and provides for backup SO2 control.

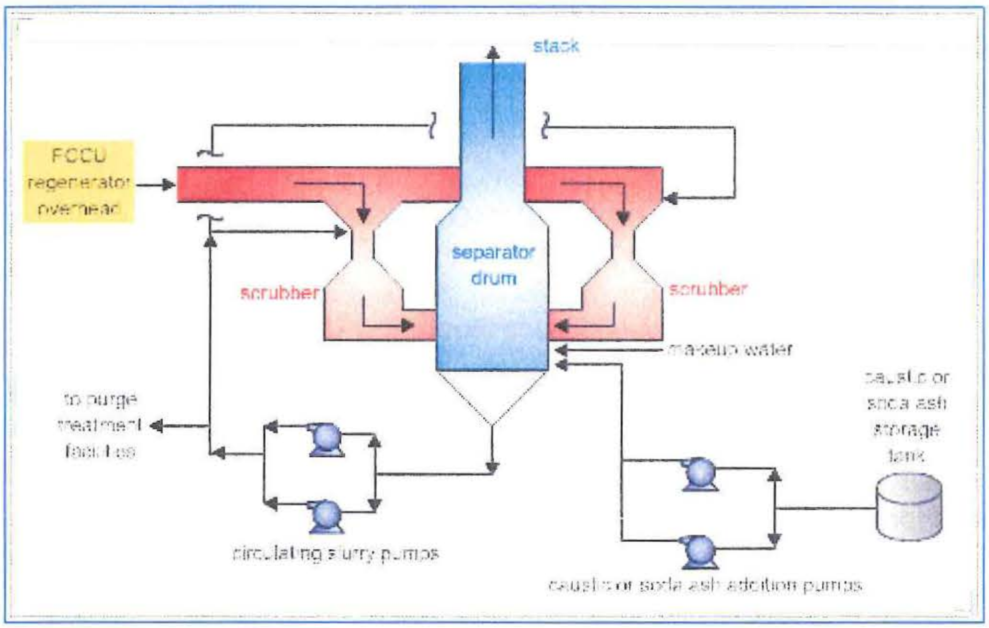
DESOX contains a patented magnesium aluminate spinel which has proven to be the most effective means of reducing SO2 emissions. DESOX reduces FCCU SO2 emissions by transferring sulfur, in stable form, from the regenerator to the reactor, where it is released as hydrogen sulfide for downstream recovery as elemental sulfur. The Joliet Refinery will use a DESOX process ahead of a wet gas scrubber on the FCC flue gas to recover as much sulfur as possible, thereby minimizing the dissolved solids discharged to the Des Plaines River.

DESOX is currently used by a significant number of refiners to control FCCU SOx emissions. Since the introduction of DESOX, over 60 refineries with a wide range of unit configurations and operating conditions have conducted successful tests, including many units operating in partial combustion.

Wet Gas Scrubber (WGS)

Catalytic SO2 scrubbing DESOX technology has limited SO2 removal efficiency. Therefore, in order to achieve the necessary SO2 removal, ExxonMobil must complement DESOX technology with a wet gas scrubber. The flue gas flows through scrubbers and it is contacted with an alkaline solution, which converts the sulfur dioxide to sulfites and bisulfites. Catalyst particles in the flue gas are also removed from the flue gas via inertial impaction with the liquid droplets. The scrubbing liquor is removed from the flue gas in a disengaging drum and returned to the scrubbers for reuse. A portion of the scrubber liquor is purged to remove the catalyst solids and conversion of sulfites to sulfates via an oxidation step.

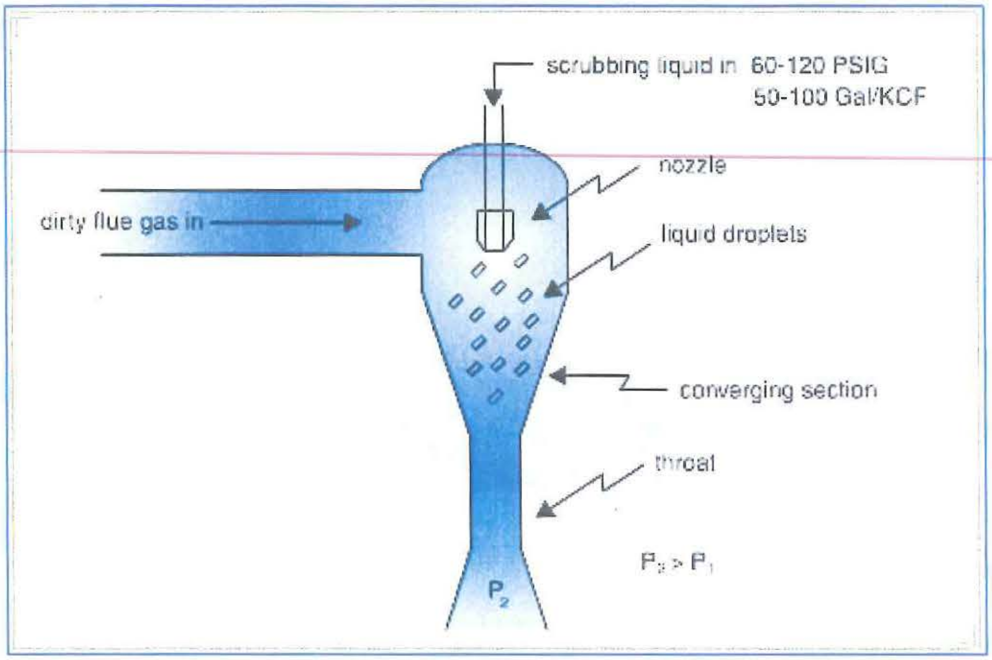
Wet Gas Scrubber



ExxonMobil's WGS technology removes particulates and SO_2 and/or NO_x by washing them from the flue gas stream using intimate mixing with an aqueous scrubbing liquid. After effective separation from the scrubbing liquid, the clean flue gas is vented to the atmosphere and the liquid containing the particulates SO_2 and/or NO_x is disposed of in an environmentally acceptable manner. The WGS system is designed without costly adjunct equipment such as electrostatics or upstream saturation towers and its small plot space allows for flexible placement.

ExxonMobil's WGS can be retrofitted into all full-burn and partial-burn FCC's, even those with first generation CO boilers and very low flue gas pressure. If the FCC flue gas has sufficient pressure, the High Energy Venturi (HEV) is recommended. However, if the available pressure is low, as is typical in partial-burn units, then the Jet Ejector Venturi (JEV) is preferred. Because the JEV pulls the gas into the scrubber using low pressure created in the venturi throat, for FCC's with older CO boilers, the JEV may avoid the need to upgrade the boiler. In fact, this WGS design offers the lowest pressure drop (as low as zero) of any commercial scrubber.

Liquid And Gas Introduction In Jet Ejector Venturi Scrubbers

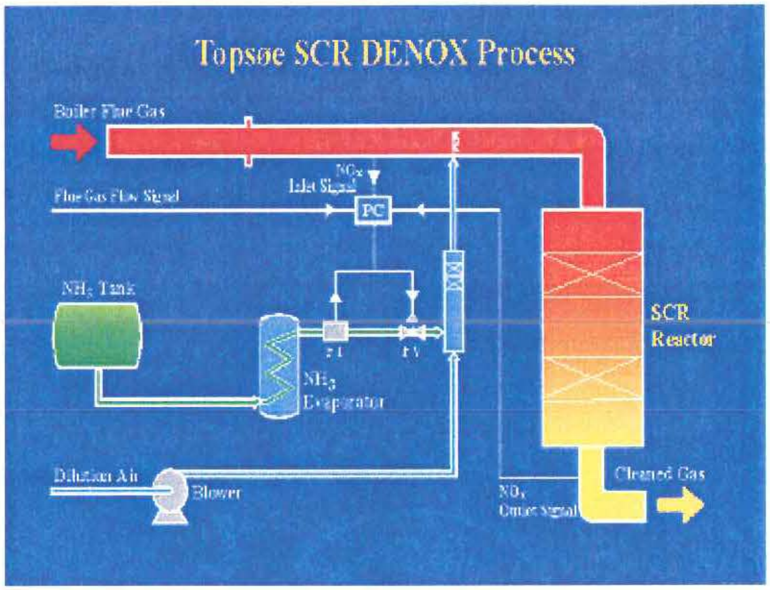


High Reliability and Run Lengths Exceed Four Years

Nearly two dozen ExxonMobil WGS units have been designed, built and operated since the 1970's. The robustness of these units affords even the early designs to continue to reliably perform today. ExxonMobil's experience in operating their WGS technology has brought improvements in recent years to reduce capital costs while maintaining the unit's integrity, top performance and reliability. With run lengths exceeding four years, these units operate until the FCC is ready for its turnaround. In fact, no FCC has ever shut down due to a problem in an ExxonMobil WGS.

Selective Catalytic Reduction (SCR)

Selective Catalytic Reduction (SCR) is the reaction of NO_x with ammonia NH_3 that occurs on a catalytic surface to produce N_2 and H_2O. The typical temperature range of an SCR is 400 ^oF to 950 ^oF with guaranteed NO_x removal rates of 95+%. The catalytic metals are oxide forms of vanadium and tungsten. Commercial applications of SCR range from very clean service in natural gas – fired turbines to ultra high particulate loadings (>20,000 mg/Nm^3) in coal – fired utility boilers. The general process flow diagram is illustrated below:



The reactions that occur are as follows:

$$4\ NO + 4\ NH_3 + O_2 \rightarrow 4\ N_2 + 6\ H_2O$$

and

$$8\ NH_3 + 6\ NO_2 \rightarrow 7\ N_2 + 12\ H_2O$$

The SCR does not interfere with the cracking process as it is downstream of the Reactor and Regenerator. Currently, there are several FCCUs equipped with SCRs throughout the world with the first one placed on – line in 1986.

Normal particulate concentrations of FCCU Flue Gas are less than 500 mg/Nm^3. The SCR is ideally situated in the low dust position downstream of an Electrostatic Precipitator (ESP) but can easily be designed for high dust service.

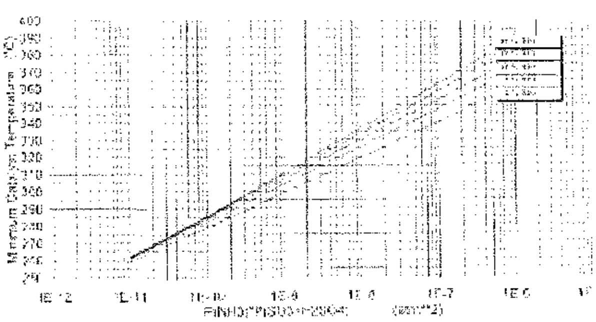
Refiner and Location	Start of SCR Operation
Saibu Oil Co. Japan	1986
Showa Yokkaichi Oil Co. Japan	1988
Nippon Petroleum Refining Co. Japan	1992
Skandinaviska Raffinaderi AB Sweden	1994
Idemitsu Petrochemical Co. Japan	1994
Kyokutou Petrochemical Co. Japan	1994
KOA Japan	1997
ExxonMobil USA	2000

Design considerations include targeted NO_x removal level, service life, pressure drop limitation, ammonia slip, space limitation, flue gas temperature, composition and SO_2 oxidation limit. SCR suppliers typically guarantee the performance of the unit for NO_x removal, service life, pressure drop, ammonia slip and SO_2 oxidation. Ammonia slip, referring to the reactant, which passes through the process, is typically guaranteed between 2 and 10 ppmv.

The reaction of SO_2 to SO_3 is undesirable because the SO_3 can react with NH_3 to form the salt ammonium bisulfate (ABS) which will foul downstream equipment and trigger high opacity readings. ABS formation is a function of temperature, ammonia partial pressure and SO_3 partial pressure. If the reactant species are abundant in a cool environment (< 500 ^{o}F), ABS formation will occur.

SO_2 Oxidation:	$2\ SO_2 + O_2 \rightarrow 2\ SO_3$
Ammonium Bisulfate Formation:	$NH_3 + SO_3 + H_2O \rightarrow NH_4HSO_4$
Ammonium Sulfate Formation:	$2\ NH_3 + SO_3 + H_2O \rightarrow (NH_4)_2SO_4$

The graph below describes ABS formation as a function of temperature for a specific case and is provided only for discussion as every application is unique. Corrective actions to take if the unit starts to form ABS are to increase the operating temperature of the SCR above the ABS dewpoint and verify the concentrations of ammonia slip and SO_3. ABS is a temporary foulant since elevating the operating temperature will cause sublimation to gaseous phase.

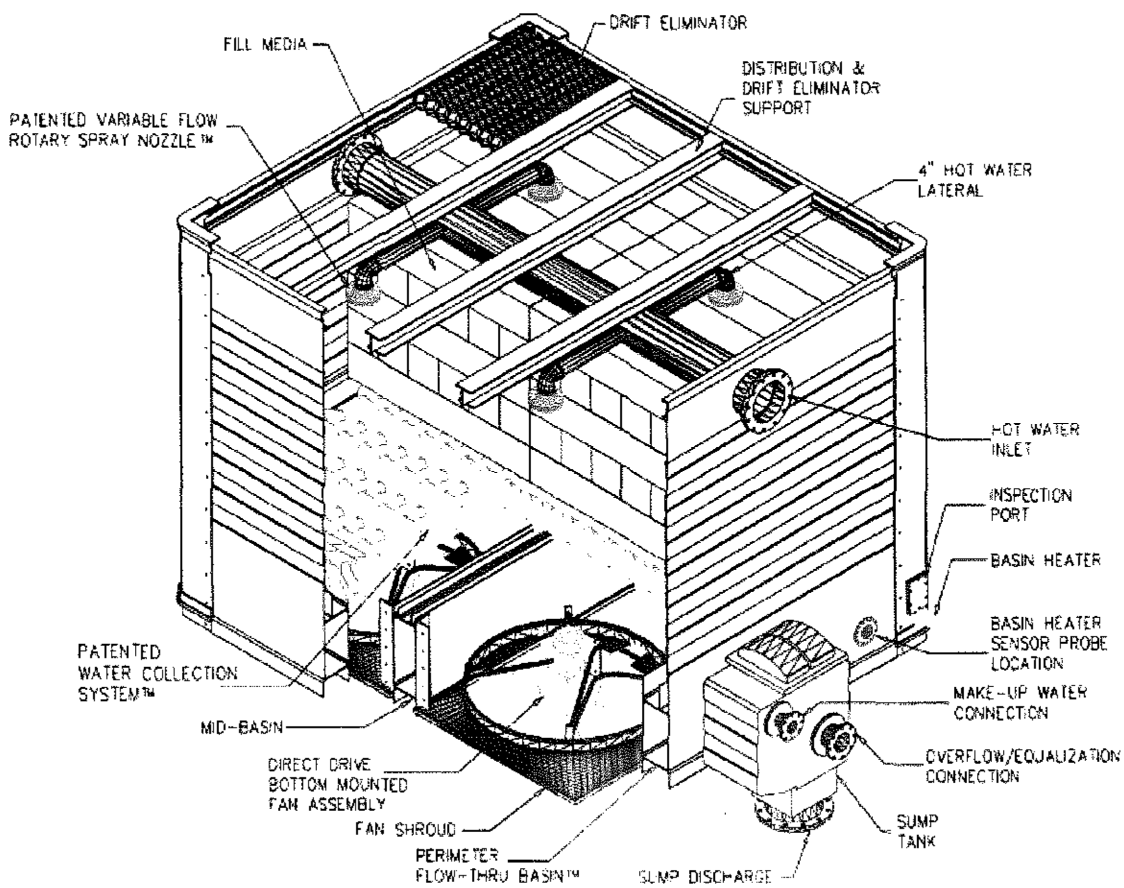


WGS Purge Treatment Facilities/Processes

The Wet Gas Purge Stream will be cooled, the catalyst solids and ammonia nitrogen removed, and discharged upstream of the refinery Outfall 001 in the wastestream treatment system. Three alternative treatment processes for the catalyst fines and ammonia are under consideration by the Refinery. None of these options will change the TDS or sulfates discharged into the Outfall.

Cooling of WGS Purge Stream

The TTXE Series forced-draft, counter-flow cooling tower delivers reliable thermal performance in both constant and variable heat load applications. Its modular design enables easy interconnectability to create virtually any size cooling tower and quickly accommodates future expansion of cooling tower capacity.



Some unique design features included with this cooling tower include:

- Flow-Thru Basin™
- Variable-Flow Rotary Spray Nozzle™
- Water Collection System™
- Bottom Mounted Fan